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Army Advanced Collaborative Environment Looking at Options

1 July 2003

Problem Statement

Define for Mr. Boulton the schedule and cost of the Army ACE by 1 Oct.

Need to determine the requirements for the Army ACE in order to determine architecture, alternatives and eventually cost

Need to develop a plan and schedule to achieve the Oct brief, given the complexity of data

- Level of detail / complexity
- ROI on each alternative
- Data call and POCs for each PEO /PM as appropriate

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Resource Information

PTC.com

Matrixone.com

Oracle.com

Gartner

AMS

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Definitions and Terms

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- IDE – Integrated Data Environment. Defined differently in each service but generally thought of as bringing all of the critical systems together in an organization such that the data is developed once and used by all through integration of multiple IT systems on similar or disparate platforms.
- PLM – Product Lifecycle management – The product lifecycle reflects the end to end management of an item or system from planning and concept through all stages of configuration to product retirement
- PDM – product data management is generally thought of as the technical data to support a product through all phases of its lifecycle
- ACE – Advanced Collaborative Environment or Colloborative environments range from data sharing through voice and email, threaded discussions and e-room technology , to sophisticated integration tools with complete workflow and project management / earned value capability.
- Quality Functions – Often considered engineering functionality in the DoD, such as configuration management, approval of service test letters, quality deficiency reports/reviews, etc. One element of the PLM in which product data is heavily used and collaboration is often necessary, particularly in geographically dispersed organizations.

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What does a typical PDM – IDE – ACE tool look like?

Insert diagram on typical architecture for ACE, PDM a

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Representative Capabilities of the Tools

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Feature	Oracle eBusiness Suite and eCollaboration	PTC Windchill	MatrixOne eMatrix
Threaded Discussion	x	X	X
Workflow approval/routing	X	X	X
Viewing – regardless of configuration	X	X	X
3D Animation of components	X	X	X
Integration to other PDM tools	?	?	X –DLA pilot
Integration to ERP tools	SAP	?	SAP
Continuous and transparent use – enter one application to	X	verify	X

mcassidy:

This can end up being an exhaustive list of requirements and compare more than the 3, plus JCALS and JEDMICS

The market players

Summary of best and their strength from the Gartner magic quadrant and other industry analysts

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What are some of the alternatives for consideration of 1 July brief

Interoperability

within govt programs and tools

between govt and contractors – to what extent do you want interoperability with OEMs. This is more critical for weapon system PEOs.

Hardware, software and network costs

System administration and content management costs

Security, information assurance, proprietary data and markings from industry, role based activities and control.

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Some Issues for Consideration

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- **To what extent do you need to integrate with ERP tools or other logistics tools for PEO EIS or any other PEO.**
  - IDE and PDM tools are one means of complimenting the Supply Chain since many of the ERP programs do not have robust technical or quality (Service Engineering Functions) functionality as part of the implementation.
- **Need an effective mechanism to "CRUD" all types of data, preferably in a single tool or in a tool that readily allows integration with other tools.**
- **Ability for CINCs to evaluate readiness by evaluating product availablity and status (DLA /logistics function). Similarly can be source of reviewing program readiness**
- **Facilitate communications between OEM (and subs) and the government in addition to organic collaboration.**

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What the Army is doing

Action	FCS	AMC/RDEC	PM LAV Picatinny Arsenal, etc
IDE Contract			
PDM Contract	**X**	**X -**	
Collaboration tools	**X**		
Pilot Effort		**X – planned but never awarded**	**X**

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Cost

What level of detail

How many alternatives

Who needs to approve drives the type of tool and business case used

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What the Services are doing

Action	Air Force	Navy	DLA
IDE Contract			**X**
PDM Contract			**X**
Pilot Effort	**X**		**X - completed**

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Proponents Advocates and Constiuents

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Likely users are:

- **PEOs – Acquisition Community – to the extent that the functionality below is embedded in the PEO, the ACE will be used by all functionals. Interface with OEMs, project and Earned Value data**
- **Engineers – collaboration on engineering drawings, ROD, Service test letters, design and configuration, quality**
- **OEMs – basis for the product lifecycle management**
- **Logisticians – sourcing, BOM, integration with ERP, sustainment (service and support)**
- **Procurement/Contracting – purchasing and integration with eProcurement**
- **Budget/Financial team – forecasting, product launch, sales, product cost**

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Architecture Alternatives

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Tentative Schedule for Developing ASA ALT brief

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Insert project schedule

Include PEO /PM data call

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Tentative Schedule to get to IOC

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Include time required to interface with required systems

Include Pilot(s)

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Next Steps

Receive your guidance on the project direction

Perform analysis and generate results

Develop a plan of action and milestones for Oct 1 brief to Mr Boulton to include “mini POM” back up:

- **program schedule**
- **resource and cost estimate**
- **program requirements**

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The PDM Vision (1 of 2) - DLA

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From a functional perspective, a complete process is one in which a user does whatever their required function is- in DLA's instance checking the engineering status of an item or building a technical data package as an example- in a continuous and transparent manner

- Implies user can complete an assigned function or task without having to explicitly enter and exit multiple applications
- Implies relevant data is made available without regard to system or application of origin
- Required modifications to data as a result of the business process occur automatically without regard to system or application or origin

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Back-up slides

How do IDE/PLM and PDM differ from JCALS and JEDMICS

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